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Railway applications - Track - Track geometry quality -  
Part 2: Measuring systems - Track recording vehicles

## EESTI STANDARDI EESSÕNA

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EUROPEAN STANDARD

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## Railway applications - Track - Track geometry quality - Part 2: Measuring systems - Track recording vehicles

Applications ferroviaires - Voie - Qualité géométrique  
de la voie - Partie 2 : Systèmes de mesure - Véhicules  
d'enregistrement de la voie

Bahnanwendungen - Oberbau - Geometrische  
Gleislagegüte - Teil 2: Messsysteme -  
Gleismessfahrzeuge

This European Standard was approved by CEN on 5 July 2020.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 13848-2:2020) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2021, and conflicting national standards shall be withdrawn at the latest by May 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13848-2:2006.

This European Standard is one of the series EN 13848 “*Railway applications — Track — Track geometry quality*” as listed below:

- *Part 1: Characterization of track geometry;*
- *Part 2: Measuring systems — Track recording vehicles;*
- *Part 3: Measuring systems — Track construction and maintenance machines;*
- *Part 4: Measuring systems — Manual and lightweight devices;*
- *Part 5: Geometric quality levels — Plain line, switches and crossings;*
- *Part 6: Characterization of track geometry quality.*

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## 1 Scope

This document specifies the minimum requirements for track geometry measuring principles and track geometry measuring systems in order to produce comparable results when measuring the same track. It applies to all measuring systems, attended or unattended, fitted on any vehicle, except those systems defined in EN 13848-3 and EN 13848-4. Only systems put into service after the standard comes into force are concerned.

This document does not define the requirements for vehicle acceptance.

This document does not apply to measuring systems dedicated to Urban Rail Systems.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13848-1, *Railway applications - Track - Track geometry quality - Part 1: Characterization of track geometry*

EN 13848-6, *Railway applications - Track - Track geometry quality - Part 6: Characterisation of track geometry quality*

JCGM 200:2012, *International vocabulary of metrology – Basic and general concepts and associated terms (VIM)*

## 3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

### 3.1

#### **track geometry recording vehicle**

self-propelled or hauled vehicle with fixed, dedicated, measuring equipment and systems, used for the measurement, assessment and recording of track geometry parameters under loaded conditions, which measures and produces consistent results to the requirements of EN 13848-1

Note 1 to entry: The measuring system can be attended or not. The track geometry recording vehicle belongs to the infrastructure inspection vehicles as defined in TSI Loc&Pas 1302/2014/EU.

### 3.2

#### **sensor**

device which detects, measures and translates characteristics of track geometry into quantities that can be used for further data processing